



Electronic Thermal Management Products

eGraf™ Class 700 Thermal Interface

eGraf™ Class 700 Thermal Interface Materials are manufactured entirely from highly conductive natural graphite. Class 700 products have a minimum thermal conductivity of 12 W/m°C through the thickness and a thermal conductivity of approximately 200 W/m°C along the length and width. These directional properties, or anisotropy, make Class 700 products excellent heat conductors and heat spreaders. Class 700 products conform to mounting surfaces under extremely low loads (10–50 psi), and so exhibit low contact resistance even when used with surfaces that are out of flat or with high surface roughness. By combining high conductivity with low contact resistance, Class 700 products are excellent replacements for thermal greases and phase change materials. Class 700 products are also able to provide effective heat transfer in systems with lower die junction temperatures - conditions where phase change materials are ineffective. The performance of Class 700 products does not degrade due to heat or pressure (per ASTM F-38), and will not separate, migrate, pump out or dry out. Excellent contact is maintained for the life of the assembly, reducing the chance for heat related failures.

<u>Typical Properties</u>	<u>Grade 705</u>	<u>Grade 710</u>
Thickness, mil (thousandths of an inch)	5	10
Thermal Conductivity, W/m°C (minimum)		
along length and width	200	200
through thickness	7	7
Specific Thermal Resistance, °C-in ² /W	0.03	0.06
Continuous Use Temperature, °C	-50 to 200	-50 to 200
Tensile Strength, psi	750	750
Pressure Sensitive Adhesive	optional	optional
Color	gray	gray

Applications

Board Mount Power
CPU modules
DC/DC converters
Mobile computing devices
Communications devices
EMI Shielding

Product Performance

Unparalleled low thermal resistance
Easily conforms to surfaces, eliminating air gaps
Thermally and mechanical stable between -50°C
and 200°C
Can be cut to any size or shape
Easily installed during component assembly

Product Availability

Available in 5, 10, 15, and 20 mil thickness
Available with a pressure sensitive adhesive on one side (705A, 710A, 715A, and 720A) or without (705, 710, 715, and 720)
Available in finished parts made to your drawing
Standard roll is 24 inches wide x 100 feet long

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